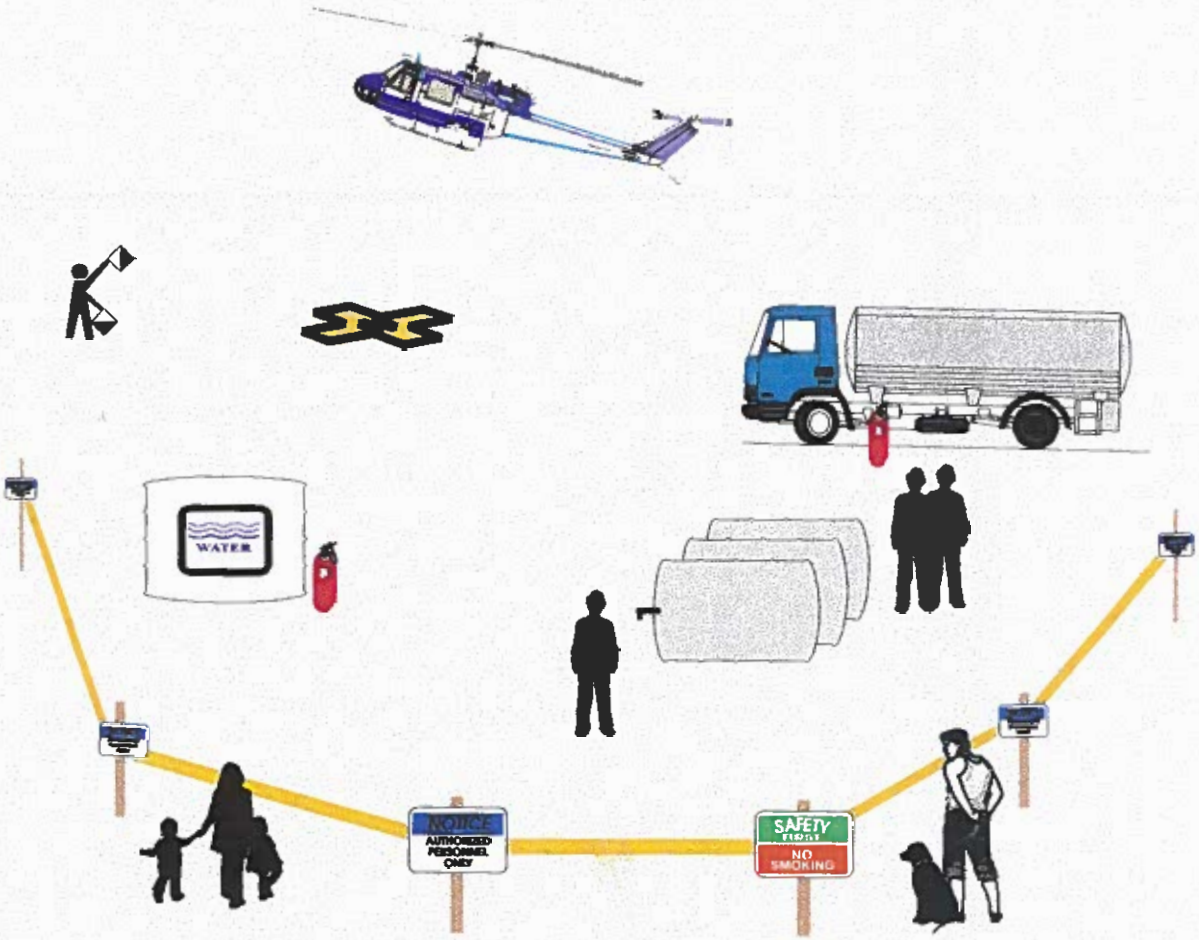
Blackwater National Wildlife Refuge

1997 Gypsy Moth Suppression Project

SAFETY PLAN



WHEN AN ACCIDENT OCCURS

Immediate Actions to Be Taken

1. Rescue survivors and render first aid.
2. Immediately notify local emergency services if communications are available at the accident site. If not, contact Project Operations Center, who will notify local emergency services.
3. Secure the site.
4. After immediate threat of danger has passed, refer to the safety plan for more detailed procedures.

EMERGENCY SERVICES

County Emergency Services:	(410) **228-3223** Dorchester Co. Health Department County Dispatcher
State Police:	Emergency **911** (410) **228-3101** Cambridge, MD
Fire Departments:	Emergency **911** (410) **228-2222** or **2223** Dorchester Fire Control (410) **228-1861** Church Creek Fire Tower
Poison Control Center:	**1-800-492-2414**
Center for Oil/Toxic Chemical Spills:	**1-800-424-8802**

BLACKWATER NATIONAL WILDLIFE REFUGE
GYPSY MOTH SUPPRESSION PROJECT

SAFETY PLAN
1997

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INTRODUCTION

This Safety Plan is specific for the aerial application of the nucleopolyhedrosis virus (NPV) product, which is better known as Gypchek, for gypsy moth suppression. The goals of this Safety Plan are to:

1. Eliminate all avoidable accidents.

2. Identify and eliminate hazardous conditions whenever possible.

3. Promote safety awareness, responsibility and accountability.

4. Create and maintain positive attitudes in all employees toward personal health and safety.

This Safety Plan covers the following areas:

1. Provides guidance in proper methods of storing, transporting, mixing, applying and disposing of pesticides. This guidance is designed to minimize the potential for adverse human health and environmental effects associated with the use of pesticides.

2. Prescribes specific communication and transportation actions to be taken in the event of an emergency.

3. Detailed action to be taken during or after the pesticide application, if there is evidence of illness or physical reaction to the pesticide.

4. Provides the names and telephone numbers of the nearest hospital facilities, ambulance services and fire companies to be contacted in case of an emergency in the vicinity of the treatment area.

5. Includes a list of pesticide ingredients, appropriate precautionary label statements, and EPA Registration Number of the pesticide to enable prompt and accurate transmission of the information in case of accident or illness.

6. List of known antidotes to reduce or eliminate possible hazards to humans and other non-target organisms from accidental pesticide spills or misapplications.

Regardless of how thorough this Safety Plan may appear, each person on the project should be constantly alert to detect any unsafe practices and provide immediate corrective action to eliminate or deter these acts. Injuries can occur in a fraction of a second.

GENERAL SAFETY

All project personnel should be: (1) fully acquainted with hazards of pesticide use; (2) understand the importance of personal hygiene; (3) use protective clothing and devices that are prescribed on the pesticide label or required by USDI Fish and Wildlife Service and/or USDA Forest Service; and (4) always be sure somebody knows where you are working.

Persons working on projects involving the use of pesticides should become familiar and comply with the project Safety Plan. A copy of this project Safety Plan should be in the possession of each person working on this project. A general reference source for pesticide safety is "PESTICIDE SAFETY - GUIDELINES FOR PERSONAL PROTECTION", Publication FPM 83-1, USDA Forest Service, Forest Pest Management, Washington Office.

A Job Safety and Health Hazard Analysis, Form FS-6700-7 (1/86), has been included in the Appendices. It assists in identifying the hazards on the project and identifies ways to eliminate, or at least minimize them.

In general, the pesticides used for this project have low to no toxicity to humans, but unnecessary contact should be avoided. Some people are hypersensitive to certain compounds. Personnel who have a known chemical hypersensitivity to compounds being used should not work on this project. Refer to the Material Safety Data Sheets included in the Appendices to see what compounds are being used, and their potential hazards.

Supervisors should be informed of any allergies or medications a crew member may have, so that in the event of an emergency an EMT or physician can be alerted and can provide the appropriate aid to the person.

The health and safety precautions to be followed when using a pesticide include:

- Reading the label on all pesticide containers and following recommended mixing and use directions.
- Following safety practices provided on the label and in the project Safety Plan.
- Keeping visitors and other non-project persons, pets, and livestock out of loading and storage sites and areas where application is in process.
- Washing hands with soap and water immediately after contact with chemicals before handling food or tobacco substances. <u>DO NOT EAT, DRINK, OR SMOKE WHILE USING PESTICIDES!</u>

- Washing work clothes daily and changing into clean clothing when not on duty.

- Handling containers of pesticides and/or diluting with care to avoid personal injury. Use barrel rolls when applicable.

- Cleaning up spilled pesticides immediately after securing the safety of persons on the project.

- Supplying persons directly involved with handling pesticide containers or spill clean-up with unlined liquid-proof gloves and boots. Gloves should cover the wrists and boots should extend above the ankle. Long sleeve shirts and pants must be worn.

- Ensuring that mixing, loading, and application crews have eye protection available for use.

- Avoiding skin contact with pesticides or breathing of pesticide dusts or vapors at all times.

FOOT TRAVEL

Field crews may be traveling by foot to reach some balloon marking sites. Be certain that permission has been granted from land owners in advance of crossing private property.

BLISTERS - Break in boots before using them heavily. Keep laces tight and wear heavy socks. Treat broken blisters to avoid infection.

FATIGUE, EXHAUSTION - Workers should be in good shape. If not, some form of exercise should be scheduled before the field season starts. When in the field, minimize heavy supplies being carried where possible, and divide work so as to minimize any extra unnecessary trips.

STEEP SLOPES, WET LOGS AND ROCKS - Watch where you step and don't hurry in hazardous terrain. Sturdy work boots should be worn with a minimum height of 8" with Vibram type soles.

WORKING IN HOURS OF DARKNESS - Because of the irregular working hours associated with aerial spraying, it may not be possible to arrange your schedule to minimize the need to be in the woods in the dark. Pick your easiest, unobstructed route, such as walking down a woods road or open trail. If time permits, reconnoiter the area of work during daylight hours. Flashlights will be made available to all field personnel; always carry an extra set of batteries.

DISORIENTATION IN THE WOODS - Note obvious landmarks and directions, and familiarize yourself with the maps before entering the area. Use the maps, compasses and radio if necessary to keep track of where you are. If you become disoriented, don't panic. Find a road or, as a last resort, a drainage and follow it until you can find where you are and orient yourself to the map.

WALKING THROUGH BRUSH - Avoid these areas when the light conditions are poor. If carrying filled balloons, you may have to go around brushy areas to avoid puncturing them. Be alert for branch stubs and sticks, and wear a hard hat and eye protection. Heavy canvas duck clothing is recommended in areas with briars or other thorny vegetation. Full balloons cannot be carried through thorny vegetation if it is higher than thigh level.

FENCES - Cross at gates or near posts and use extreme caution. Puncture wounds can easily become infected or cause tetanus, so threat them seriously. Be alert to electric and barbed wire fences.

WORKING DURING HUNTING SEASON - Crew members will wear orange safety vests whenever working in the woods.

VEHICLE TRAVEL AND EQUIPMENT

Field crews will be driving from one area to the next. Operators are responsible for driving defensively, to avoid accident situations created by the mistakes of others, or by weather and road conditions.

VEHICLE TRAVEL - Always use defensive driving techniques and limit speeds to those appropriate to the vehicle and the road you are traveling. Drive only on roads that are appropriate for the vehicle you are driving. You won't save time if you get stuck or have an accident to avoid a half-mile walk. Wear your seat belts at all times when the vehicle is in motion and also, do not carry filled balloons around in the driving compartment of the vehicle. Watch out for animals trying to cross the road.

Conduct daily vehicle safety checks. Each vehicle shall carry a first aid kit, fire extinguisher and accident report form kit.

HELIUM TANKS - Tanks should be blocked securely in a vehicle to avoid rolling around and under **NO** circumstances will the regulator be left on the tank when the vehicle is in motion. If small portable tanks are used, care should be taken to avoid dropping or striking them against any object, and again DO NOT transport them with the regulators attached. If a valve does break or a tank ruptures, get behind the nearest and sturdiest cover possible, as pressurized tanks can become extremely dangerous and often fatal projectiles!

AVIATION SAFETY MEASURES

1. No spectators will be allowed in the loading and fueling area (Operations Area). Spectators will be prohibited within 100 feet of the Operations Area.

2. Operations Area will be cordoned off and signed "Authorized Personnel Only" and "No Smoking".

3. Smoking, or use of matches or lighters, will not be permitted within 50 feet of any fueling or loading operations.

4. All landing approaches and departure routes will be kept clear of vehicles and personnel.

5. All loose gear in the area of a helispot susceptible to rotor downwash shall be secured or removed.

6. Wind indicator (such as a wind sock) is required.

7. Operations Area for the aircraft will have a first aid kit, a clean water source and fire extinguisher.

8. Static grounds will be provided for both the loading and refueling operations.

9. Ear and eye protection will be used.

10. Hats will be secured by a chin strap or not worn at all.

11. Approach or leave aircraft only when authorized by pilot or authorized personnel. When approaching or leaving helicopters remain in full view of the pilot and keep in a crouched position. Do not approach an aircraft under the wing or around the propellers.

12. Prior to any refueling operations, all aircraft passengers will be off-loaded.

13. Pilots and any passengers will use seat belts and when available, shoulder restraints.

14. Fire resistant (Nomex) clothing will be worn by pilots of application and any observation aircraft, and by any aerial observers in a helicopter or in a fixed-wing aircraft that will be flying below 500 feet.

15. Communication to the pilot during take off and landing is prohibited except in an emergency, i.e. sighting of other unidentified low flying aircraft in a danger path or sighting of flames or fire on the aircraft. Remain CALM and report your sightings clearly.

16. Provisions will be made to apply calcium chloride or water for dust reduction at a helispot area.

17. All specifications in the application contract will be adhered to regarding aircraft operations, safety and communications.

BIOLOGICAL HAZARDS

All personnel involved with this project will be confronted with this type of hazard and must be aware of the following elements.

ALLERGY TO GYPSY MOTH - This is unavoidable working in epidemic populations, and is often not known until a person comes in contact with this situation. Though normally not serious, the possibility should be made clear to potential employees. An allergy usually manifests itself as a red rash, and can be minimized by wearing long clothing and protecting the collar and wrist/ankle area. Treat the rash with antihistamine lotion.

STINGING INSECTS, POISON IVY - Wear long clothing and watch where you are walking, sitting or reaching. Ointments can be used to lessen the effects of poison ivy. Make your co-workers aware of any allergies you have to bee stings and make sure they know where your antidote is kept. Keep an eye out for hornets constructing nests and stay clear of them. A bee sting can be fatal.

BITING INSECTS - Ticks, biting flies and mosquitoes will be the major pests on this project. This nuisance can be minimized by wearing long clothing and using insect repellent.

POISONOUS SNAKES - Watch out for rattlesnakes and copperheads in the spring on warm exposed spots, especially along timber roads, or stream banks. Wear high boots and chaps or heavy, loose fitting pants, and look before stepping over logs or climbing hand over hand on rocks. Copperheads require special care because they are well camouflaged and do not have any warning mechanism like a rattlesnake. In the event of a bite, remain calm and take the most direct route back to the vehicle with a partner so he/she can drive the bitten victim to the closest medical facility.

WILD ANIMALS - Give wild and domestic animals a wide berth, particularly if they have young nearby. It is also possible that the wildlife you come upon may have rabies, so don't go near or attempt to touch them.

IN THE EVENT AN ACCIDENT SHOULD OCCUR WITH THE ABOVE HAZARDS,
Follow these procedures in order of priority:

1. Administer first aid to the victim. Use personal protective equipment while trying to stop any bleeding. If help is needed, contact the closest available unit to you for assistance.

2. Transport victim to nearest hospital.

3. Contact your work supervisor as soon as possible. Supervisor should have information on each crew member's emergency data including home telephone number, and who to contact in event of emergency, as well as allergy information, blood type, etc.

4. Once the injured person is received by medical personnel, try to recall the sequence of events leading to the accident. Stay at the hospital until you are notified by medical personnel that you can leave.

5. Fill out a CA-1 and any other necessary reporting forms within 24 hours of the accident.

6. Review the situation and take corrective action to avoid similar actions in the future.

FIRST AID - PESTICIDES

Exposure to pesticides may occur through four routes of entry which are: (1) oral, (2) respiratory, (3) dermal, and (4) through cuts or abrasions in the skin. Current guides on pesticide poisoning such as "Recognition and Management of Pesticide Poisonings" (U.S. Environmental Protection Agency, EPA-540/9-80-005, January 1982) provide emergency instructions for recognizing and treating poisoning by pesticides. These guides should be readily available and consulted when needed.

In the event that a pesticide is accidentally swallowed, spilled on the skin, or splashed into the eyes, follow label directions or other emergency medical instructions provided by a poison control center, hospital, or other medical facility.

Initial first aid action that should be taken is as follows:

1. If a pesticide is swallowed, call a physician immediately and get medical care as quickly as possible (see Appendix F).

2. If a pesticide is splashed in an eye, wash the eye with clean water immediately and continue washing for about 20 minutes, and not less than 15 minutes. Speed is essential to prevent injury to the eye. This is one reason to have clean water on-hand during any pesticide project. An eye-wash apparatus should be located at each site where handling pesticides is taking place. Have the eye examined by a physician immediately.

3. If a pesticide is spilled on the skin, immediately wash the skin thoroughly with soap and water. Remove contaminated clothing. Put on clean clothing. Everyone should carry an extra change of clothes in their vehicle. Use plenty of soap and clean water to cleanse the skin, hair, and fingernails.

SINCE THE SYMPTOMS OF PESTICIDE POISONING VARY DEPENDING ON THE EXPOSURE, AN INDIVIDUAL FEELING ABNORMAL IN ANY WAY SHOULD REPORT IMMEDIATELY TO THE ON-SITE PROJECT SUPERVISOR.

When emergency medical information or assistance is needed, and a telephone is not readily available, use a project radio to make contact with persons who can then follow through with providing advanced notification to a physician's office or medical facility.

ACCIDENT AND INCIDENT REPORTING PROCEDURES

1. Notification Procedures: As used in this Safety Plan, ACCIDENT shall mean: (1) destruction or substantial damage to a vehicle; (2) minor, serious, or fatal injury to persons working on the project, whether Forest Service employees, Contractor employees, or other persons.

   As used in this Safety Plan, INCIDENT shall mean any mishap, malfunction, or situation involving vehicles or persons on the project which results in a deviation from standard procedures, or has the potential of resulting in an accident.

   Notification procedures should follow standard operating channels. The employee initiates notification procedures by notifying:

   Name: Brad Onken
   Phone: (304) **285-1546**/(301)**509-6582**

   Who notifies:

   Name: Helen Butalla/Steve Smith
   Phone: (304) **285-1548**

   Who notifies:

   Name: Dan Zimmerman
   Phone: (610) 975-4200

2. Reporting Accidents and Incidents: Telephone notification reports on pesticide accidents and incidents must be followed by written Report FS-21000-D, Pesticide Accident and Incident Report, giving as applicable, the facts according to the reporting outline prescribed in FSH 2109.12, Chapter 50, 52-1 and any other reporting forms that may be required by other agencies involved in the suppression project.

   In summary, these facts include:

   Location of accident or incident

   Ownership of property involved

   Pesticide involved: common name, quantity of total mix spilled, quantity of active pesticide product spilled, quantity of active ingredient spilled, EPA Registration Number of product.

Weather conditions at time of accident or incident.

Vegetation and animal species involved.

If humans were involved, obtain a written statement from the attending physician.

Pesticide spill clean-up measures taken.

Special problems encountered during pesticide spill clean-up.

Description of accident or incident including events immediately preceding and relating to the accident or incident. (Include soil type and moisture conditions if they have a bearing on absorption or movement of the pesticide in the soil.

Local, State and other Federal agencies notified of accident or incident.

Action taken to coordinate corrective measures with other agencies.

Record of sample:
- What was collected (carcass, plant material, water, soil, etc.)
- Time and date of samples

If a Forest Service employee, volunteer, human resource program enrollee, job corp enrollee, visitor, contract employee, or permittee is involved in an accident that involves the Forest Service and results in death, injury, illness, and/or property damage, consult FSM 6730 "ACCIDENT REPORTING AND INVESTIGATION", for appropriate reporting and investigating procedure.

SAFETY PRECAUTIONS DURING PROJECT IMPLEMENTATION

The contractor will be responsible for applying the pesticide. The Forest Service will be responsible for transporting, storing and disposing of the pesticide.

Contractors must abide by Federal OSHA and State Safety requirements. However, if any project personnel observes unsafe practices that could adversely affect employee health or the environment, the COR has the following responsibilities (FSH 6309.11).

- The project personnel shall not ignore obvious safety hazards or violations. If the violation or hazard presents imminent threat of serious injury, the project coordinator shall point them out to the contractor.

- Persistent violations or any serious violations shall be reported to the project coordinator.

- Failure to practice an acceptable conduct of safety by Contractor or Government personnel shall be documented and, if necessary, work shall be suspended until deficiencies are corrected.

The Forest Service has a responsibility to identify hazards and to require the contractor to minimize hazards.

Application Equipment - Frequent inspections for leakage or overflow of pesticides from storage tanks, pumps, or hose lines should be conducted. An air gap or anti-siphon device between the water source and the mixing tank is required. Mixing of spray solutions should be done away from streams, drains, or ditches leading to streams and only in areas where major spills would be absorbed by the soil before reaching a stream.

Protection needed for handling the pesticide during mixing is 8" high-top boots, rubber gloves, and goggles.

In addition to ensuring that appropriate protective clothing is worn, and that application equipment is maintained in safe operating condition, special effort should be made to familiarize the applicator(s) with the project area.

Pesticide Handling - The following safety guidelines should be followed during specific pesticide handling activities:

1. Pesticide Storage

   (a) Pesticide product Material Safety Data Sheets (MSDS) are attached to this Safety Plan. MSDS should be posted at locations where pesticides are stored temporarily during project implementation.

   (b) Pesticide must be stored separately from other pesticides in well ventilated, cool, dry, secured storage areas. Herbicide should be stored in rooms separate from insecticides or fungicides to avoid contamination of the insecticide or fungicide with the herbicide. Special precautions for storing a pesticide will be described in the product's MSDS.

   (c) Post identification and warning signs on storage facilities (trailers, tankers, buildings, etc.) to advise of the contents of the stored material.

(d) Protect pesticides from inclement weather or direct sunlight. Excessive heat can cause expansion of pesticides, resulting in container rupture or overflow.

(e) Keep on-hand at least 10 gallons of clean water and soap for decontamination of workers. If more than 3 people are involved with on-site project activities, a minimum of 20 gallons should be on-hand. This water must be stored separately from that used for mixing with a pesticide, and labeled as 'WASH WATER ONLY".

(f) Provide an ABC type fire extinguisher which is readily available to the storage facility.

(g) Store empty pesticide containers in secured manner until final disposal.

(h) Keep surplus pesticides in the original container if at all possible. Repackaging from broken containers must meet the same standards as the original container if they are to be transported. In some situation, such as a pesticide fire or spillage, pesticides may be stored and transferred for short distances in nonstandard containers.

(i) Select sites for storage that will prevent contamination of streams, ponds, cisterns, food stocks, or agricultural crops adjacent to work areas.

(j) Safely store all Forest Service supplied empty pesticide containers immediately after use while arranging for disposal.

2. Transportation of Pesticide

(a) Transport from the storage area only the quantity of pesticide needed for the day's operations, and return any leftover pesticide to the storage area at the end of the day.

(b) Do not leave vehicles that are transporting pesticides unattended unless the pesticides are in a secured area.

(c) Transport pesticides with the label signal words "Danger", "Poison", or "Warning", in a section of the vehicle totally isolated from drivers or passengers. Trucks with bed decking made of wood should not be used, as spills in these trucks will probably require complete replacement of the platform planking for complete decontamination.

(d) Secure containers to prevent tipping or excess jarring during transit.

(e) Cover pesticide containers to protect them from direct sunlight while in transit to the work site and place them out of direct sunlight when on-site.

(f) Do not, under any circumstances, transport pesticide containers in the same cargo area with food, livestock feeds, or clothing.

(g) Shipping papers (for the most part, the pesticide label) covering amounts of pesticide being transported, number and size of containers, product name, chemical name, and the EPA Registration Number must accompany the pesticide(s) when they are being transported.

(h) Avoid travel adjacent to streams with loaded pesticide batch trucks by careful planning of routes. No more spray volume than necessary should be transported along these routes. Parking of trucks next to streams or lakes should be avoided whenever possible both at time of spray application and in downtime between application periods.

(i) Hip boots or chest waders should also be carried to permit working in contaminated surface water. The COR or site inspectors should normally carry this equipment in the vehicle.

(j) A roll of plastic sheeting should also be available on the tanker or accompanying vehicles. This material could also be useful immediately after a spill for ditch damming or construction of a seepage-proof sump for pumping.

(k) Open containers must never be transported.

3. Pesticide Mixing

(a) Mixing of pesticide formulations should be done away from streams, lakes, drains, ditches or other open water. Soil types and depth to groundwater should also be factors considered when selecting mixing locations. To the extent practical, select sites where soil types and depths to ground water would reduce the potential of ground water contamination in the event of pesticide spillage.

(b) Personal protective equipment must always be used when mixing and loading pesticides. This includes eye protection, boots, and unlined rubber gloves.

Eye wash safety bottles should also be located in mixing and loading areas, strictly for use in the event a pesticide is spilled or sprayed into the eyes. Water from the eye wash bottles should never be used for any other purpose.

4. Pesticide Disposal - The following precautions should be taken in disposing of waste pesticide materials and containers:

   (a) Rinse empty containers three times with the pesticide carrier and pour the washings back into the spray tank for application to the project target area as a pesticide treatment. The volume of diluent should be 10 percent of the container volume for each rinse.

   (b) Do not reuse empty pesticide containers for unauthorized use. Encourage the pesticide supplier to recycle empty containers (generally done with larger drums).

   (c) After the containers have been properly rinsed, they are to be disposed of at a state-approved sanitary landfill. Empty containers should not be allowed to accumulate.

   (d) Punch holes in metal and plastic containers and break glass containers when depositing them in a sanitary landfill to ensure against reuse.

   (e) Handle empty pesticide containers and waste material with the same caution accorded the active ingredient, including the use of protective clothing.

   (f) Move the containers to the disposal site with extreme care.

Pesticide Spills - When a spill occurs, immediately determine if any person is injured or has come in contact with the pesticide. Each situation may differ, but the major and immediate effort should be to assist injured personnel and minimize further contamination. Accordingly, the following must be accomplished as rapidly as possible:

1. Remove injured persons from the site to a safe area.

2. Remove contaminated clothing from the injured, and others if necessary, and wash the individuals with detergent and water or clean as specified by the manufacturer.

3. Immediately seek medical assistance for injured and contaminated persons. Do not leave injured or contaminated individuals alone.

A small unplanned discharge of pesticide (less than 1 gallon of formulation) resulting from equipment failure, such as a leaky nozzle, or other minor mechanical problem, is not considered a spill. However, do not allow leaks in the pesticide application or mixing equipment to continue.

Spilled pesticides must be contained as much as possible on the site where the spill occurs. The spilled pesticide must be kept from entering wells, ditches, or other water systems.
In the event of a spill:

The objective is to take immediate action to minimize the spill contamination until additional help and equipment can assist in completing clean-up.

The action taken will be commensurate with the size and location of the spill and will include some or all of the following steps:

- Wear appropriate protective apparel from the spill kit. This includes eye protection, coveralls or rain suit, and rubber boots or overshoes and gloves.

- Prevent further leakage by positioning the pesticide container, or by applying a seal to the leak with rags, tape or other material at hand.

- Separate leaking containers from other containers.

- Take appropriate action to prevent unprotected persons from coming in contact with the spilled pesticide.

- Confine the spill to prevent it from spreading. Encircle the spill area with a dike of sand, absorbent material, or as a last resort dirt or rags if necessary, dig a ditch to direct the spill flow away from sensitive areas.

- If a spill involves a small water course, a dam of activated charcoal can be used to filter the water. For larger waterways, baled straw may be used to contain the spill. Dam or divert the flow of clean water around the spill if possible.

- Cover the spill with an absorbent material if the spill is liquid. (Note: Absorbent materials must be disposed of as waste pesticide.)

- Sawdust may be mixed with spilled pesticide to absorb the spill. This material should be transferred to metal containers and transported to a disposal site prescribed by the COR.

- If the spill occurs in the vicinity of swampland or other wet terrain which would become contaminated, farm lime should be used to treat the affected area. If spill occurs near stream, absorbent and contaminated soil shall be removed from immediate area.

- Prevent ignition of flammable materials by eliminating sources of ignition for example: exhausts, electric motors, gasoline engines, cigarettes.

- If needed, secure available equipment to build ponding areas so that spill does not reach waterways. Under no circumstances should this construction equipment be used if the operator is not qualified to operate the equipment.

- Initiate environmental monitoring as soon as is practical. The degree of urgency for environmental monitoring is directly related to the amount of pesticide spilled and its location to sensitive areas and species.

Emergency information on the handling of the spill of a specific pesticide is available on a 24-hour basis from the National Pesticide Telecommunications Network (NPTN), toll free at **1-800-858-7378**.

If additional emergency information is needed, the Chemical Transportation Emergency Center (CHEMTREC) can provide assistance in conducting an emergency clean-up of large spills of pesticides or other hazardous chemicals. If the NPTN is unable to provide the necessary information, they will contact the CHEMTREC. CHEMTREC can be contacted, toll-free, at **1-800-424-9300**.

Pesticide Responsibilities Under Contract

The contractor is responsible for spill containment and clean-up under the direction of the COR.

The contractor's personnel should be equipped and trained to take proper action in an emergency. The primary responsibility rests with the Contractor to control spill, minimize contamination, and conduct clean-up operations. Spills resulting from the actions of the Contractor should be contained and corrected by the Contractor.

Pesticide spills may present an emergency situation requiring cooperation of all parties. The contractor will be provided with any needed information and assistance to insure protection of human health and the environment.

If the contractor fails to initiate action on a spill, the COR or project supervisor shall initiate corrective action.

As soon as is practical, follow the direction described under "ACCIDENT AND INCIDENT REPORTING PROCEDURES" section.

After spill containment or clean-up, decontaminate equipment or other items contaminated with pesticide. Decontaminate tools, vehicles, concrete slabs, etc. with a solution consisting of: 1) one quart sodium hypochlorite plus one cup detergent in two gallons of water; 2) 5% sodium carbonate (soda ash) solution plus detergent; or 3) 5% trisodium phosphate solution plus detergent. Scrub thoroughly and follow with a clean water rinse. Inspect surrounding area for possible contamination and leave entire area safe and in usable condition.

APPENDIX A

AIRCRAFT PRE-ACCIDENT PLAN

AIRCRAFT PRE-ACCIDENT PLAN AND HAZARD MAP INSTRUCTIONS

Although no one conducts aviation operations with the intent of having an accident, the possibility is always there. When an accident does happen, one very common factor occurs and that is CONFUSION. The unit that has control of one or more aircraft can preplan most of the things that must take place in the event of an accident. This should eliminate most of the confusion that usually occurs and assist in expediting search and rescue efforts.

Another key element in safe aviation operations is the assurance that all flight crews are familiar with the known flight hazards of the area in which they will be operating.

The last two pages of Appendix A provide guidelines for establishing a hazard map for your local area.

General:

This plan establishes the actions to take in the event of an overdue aircraft, an aircraft accident or incident.

The scope of this plan outlines the basic procedures necessary to activate all emergency search, crash and rescue services as well as associated support activities as rapidly and orderly as possible.

The plan is broken down into three categories: **OVERDUE AIRCRAFT, CRASHED AIRCRAFT ON, AND OFF AN AIRPORT/HELIPORT**. Each category lists actions to take and references either Appendix B, C, or D for phone numbers and sequence. Do not delay notification because one or two items in the Appendix are unknown at the time--GET THE BALL ROLLING; keep an accurate written log and fill in the blanks as best you can.

"SOMEONE'S LIFE MAY DEPEND ON IT!"

OVERDUE AIRCRAFT

1. Obtain available information outlined in Appendix B.

2. Call Project Operations Center: (301) **509-6582**

   Who will:

   a. Call local FAA Flight Service Station: (410) **787-0040**

   b. Notify Regional Aviation Safety Officer: Greg Frederick
   (414) **297-3744**

   c. Notify Regional Aviation Office: (414) **297-3744**

      (1) Local Law Enforcement: (410) **228-3101**

OVERDUE AIRCRAFT

CRASHED AIRCRAFT - OFF AIRPORT/HELIPORT

1. Rescue survivors - Render first aid.
2. Coordinate local crash/rescue, if available.
3. Witnesses of aircraft accident will complete actions in Appendix D.
4. Complete actions in Appendix D.
5. Get information in Appendix C.
6. Call Project Operations Center: Brad Onken (301) **509-5682**

   Who will:

   a) Notify Regional Aviation Safety Officer: Greg Frederick (414) **297-3744**

   b) Notify Regional Aviation Office: (414) **297-3744**

CRASHED AIRCRAFT - OFF AIRPORT/HELIPORT

CRASHED AIRCRAFT - OFF AIRPORT/HELIPORT

1. Rescue survivors - Render first aid.
2. Coordinate local crash/rescue, if available.
3. Witnesses of aircraft accident will complete actions in Appendix D.
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   Who will:

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   b) Notify Regional Aviation Office: (414) **297-3744**

CRASHED AIRCRAFT - OFF AIRPORT/HELIPORT

CRASHED AIRCRAFT - ON AIRPORT/HELIPORT

1. Call local crash/rescue, if available: Emergency - **911**
2. Rescue survivors - render first aid.
3. Evacuate injured.
   a. Notify hospital, doctor: (410) **228-5511**
   b. Notify local law enforcement: (410) **228-3101**
4. Complete actions in Appendix D.
5. Get information in Appendix C.
6. Call:
   a. Regional Aviation Safety Officer: Greg Frederick (414) **297-3744**
   b. Regional Aviation Office: (414) **292-3744**

CRASHED AIRCRAFT - ON AIRPORT/HELIPORT

LOCAL OPERATIONAL AREA HAZARD MAP

Aircraft operating at the low altitudes are subject to a high risk mishap environment. Several wire strikes, often culminating in a catastrophic accident, occur within flight operations each year. To minimize this risk, a detailed knowledge of the area to be flown and the awareness of the many obstacles which may be encountered is an essential part of the accident prevention program.

The development of a Local Operational Area Hazard Map, with constant updating as changes occur, will help in increasing the pilot's awareness of existing "wire" or "obstacle" hazards which may be encountered during operations at low altitudes.

The following is recommended:

1. A map scale of ½" to the mile or as close as you can get.

2. Cover with a hard, clear plastic sheet to facilitate nonpermanent hazard notations.

3. Post hazard map where all pilots are briefed and shown the map.

4. Assure that all pilots are briefed and shown the map.

5. Obtain current information from the materials/agencies listed below:

    a. Federal Aviation Administration (FAA):
        (1) Notice to Airmen on parachute operations
        (2) Glider operation
        (3) Military low-level operations
        (4) Areas of extreme turbulence

    b. Sectional Aeronautical Charts and FAA Flight Service Station for low-level military training routes (MTR).

6. Utilize the legend on the following page for hazard marking.

HAZARD MAP INSTRUCTIONS

HAZARD	LEGEND HIGHLIGHTER COLOR	SYMBOL
Power lines/Wires & Cable Crossings	Red	Railroad tracks
Towers	Red	Dot
Aerial Activities	Yellow	Line w/hashlines
Military Routes	Red	Wide solid line
Airports	Yellow	Colored runway
Heliports	Yellow	Dot
Restricted Areas	Red	Line through a row of x's
Known Extreme Turbulence	Red	Contour line of e's

HAZARD MAP INSTRUCTIONS

APPENDIX B

AIRCRAFT INFORMATION

AIRCRAFT INFORMATION

Date: _____ Local Time: _____

1. Name of pilot.
2. Names of passengers/crew members (how many?)
3. Aircraft tail number.
4. Type of aircraft.
5. Color of aircraft.
6. Type mission.
7. Last known point of takeoff.
8. Last known location.
9. Point of intended landing.
10. Was flight plan filed with FAA?
11. Was flight following being accomplished?
12. Time aircraft was due at destination.
13. Name, telephone number and location of person coordinating location effort.

NOTE: Aircraft is considered overdue 30 minutes after filed arrival time or position report.

REMARKS:

APPENDIX C

AVIATION SAFETY COMMUNIQUE
(AIRCRAFT INITIAL INCIDENT/ACCIDENT REPORT FORM)

SAFECOM

AVIATION SAFETY COMMUNIQUE

Reported By (Optional)
Name_____ Phone_____
Organization_____ Date__/__/__

EVENT

Date __/__/__ (Mo Day Yr) Local time ____ (24 hour clock) Injuries? Y__ N__ Damage? Y__ N__

Location_____ State __
Airport, City, Lat/Long, or Fire Name

MISSION

Type_____ Procurement_____
Pax,Cargo,Recon,Sling,Longline,etc. Contract,CWN,Rental,Fleet,etc.

Number of Persons Onboard____ Special Use? Y__ N__ Haz Mat Onboard? Y__N__

Departure Point_____ Destination_____

AIRCRAFT

(Reg)N#_____ Manufacturer_____ Model_____

Owner/Operator_____ Pilot_____

NARRATIVE Please provide a brief explanation of the event.

This form is used to report any condition, observance, maintenance problem, act or circumstance which has potential to cause an aviation-related mishap.

Form FS 5700-14 (OAS-34) Jan 96 Data Tracking#_____

CORRECTIVE ACTION

Send to:

U.S. Forest Service-Local Forest and Regional Aviation Safety Officer in which the event took place.

U.S. Department of the Interior-Through Bureau channels to OAS Aviation Safety Manager, P.O. Box 15428, Boise, ID 83715-5428
or Submit electronically through SAFETYNET at (208) 387-5823 (8-1-N).

APPENDIX D

AIRCRAFT RESCUE INSTRUCTIONS

AIRCRAFT RESCUE INSTRUCTIONS

At an aircraft crash site, the National Transportation Safety Board (NTSB), has officially stated and declared that all crash sites are considered contaminated and injuries inflicted from debris could be fatal, based on HIV and Hepatitis B research reports. It is very critical that these sites be handled with the utmost care from the time of the accident until properly-clothed investigators arrive at the site. The least disturbed the crash site remains, the easier it becomes to investigate the cause.

1. Rescue

    a. Assist survivors and render first aid until relieved by medical personnel.

    b. If there is any danger of post-crash fire, move survivors a safe distance away.

    c. Keep bystanders and unauthorized personnel out of crash area.

    d. Establish a "No Smoking" rule. Fire and explosion are "real" dangers with residual fuel and hot metals.

2. Search the wreckage carefully for other survivors.

3. Notify the Aviation Safety Officer direct.

4. Preserve the accident site. The area to be quarantined shall not be less than 300 feet in diameter (length of a football field) and encompasses the entire wreckage. Every piece of the aircraft and its location is important to the investigators. Nothing should be disturbed. Use local law enforcement to secure site.

5. **Identify witnesses.

    a. Obtain written statements, if possible.

    b. Names, addresses, phone numbers.

**This is a very critical element.

APPENDIX E

FLIGHT SERVICES

FLIGHT SERVICES

FAA FLIGHT SERVICE:	Leesburg, VA Baltimore Office	**1-800-942-7433** (410) **787-0040**
AIRPORTS:	Cambridge Airport Route 50/Aireys Road Cambridge, MD	(410) **228-4571**
	Easton Airport Route 50 & Woods Road Cambridge, MD	(410) **822-8560**

FLIGHT SERVICES

APPENDIX F

EMERGENCY SERVICES IN PROJECT AREA

EMERGENCY SERVICES

COUNTY EMERGENCY SERVICES:	
Dorchester County Health Department Route 50 & Woods Road Cambridge, MD	(410) **228-3223**
HOSPITALS:	
Dorchester General Hospital 300 Byrn Street Cambridge, MD	(410) **228-5511**
SHERIFF'S DEPARTMENT: Dorchester County Sheriff 829 Fieldcrest Road Cambridge, MD	(Emergency **911**) (410) **228-4142**
STATE POLICE: Maryland State Police 503 Court Lane Cambridge, MD	(Emergency **911**) (410) **228-3101**
FIRE DEPARTMENTS:	
Dorchester Fire Control	(410) **228-2222/2223**
Church Creek Fire Tower (MD Forest Service)	(410) **228-1861**
POISON CONTROL CENTER:	**1-800-492-2414**
CENTER FOR OIL/TOXIC CHEMICAL SPILLS:	**1-800-424-8802**

APPENDIX G

JOB HAZARD ANALYSIS

U.S. Forest Service

JOB HAZARD ANALYSIS
(Instructions on Reverse & Ref. FSH 6709.12)

Project/Job/Project: GYPSY MOTH PROJECT

2. Location: Blackwater National Wildlife Refuge

3. Unit: FHP

4. Name of Analyst: Karen D. Felton

5. Job Title of Analyst: Forestry Technician

6. Date Prepared: 4/11/95

7. Tasks/Procedures	8. Hazards	9. Abatement Actions Engineering Controls * Substitution * Admin Controls * PPE
Handling Heavy Tanks and Drums	Strains and Fractures	Use mechanical lifting devices, avoid strains, wear gloves and wear hard-toe boots.
Helium Tanks	Compressed Gas/Strains	Anchor tanks when transporting in vehicles; protect valves; avoid dropping. Escaping gas could cause container to become a projectile.
Filling Balloons with Helium	Balloon Rupture	Inspect balloon before inflation for defects; do not over-inflate.
Foot Travel	Fatigue	Divide heavy loads. Take breaks. Stay in shape.
	Night Travel	Recon during daylight. Use head lamps. Notify landowner in advance. Wear hard hat and eye protection. Flashlights
	Getting Lost	Use landmarks for guidance. Follow land feature, i.e., streams. Trust the compass.
	Falling	Learn to fall. Wear good boots (8-inch tops, lug soles, leather).
	Hunting Seasons	Wear fluorescent colors.
	Forest Vegetation	Wear hard hats, eye protection, canvas clothing.
	Fences	Cross at gates or near posts; do not stretch wire. Avoid barbs with clothing; wear gloves. Consider all electric fences to be live.
Aircraft	Propeller	Stay at least 100 feet away from aircraft. Approach only with approval of pilot.
Handling Pesticides	Exposure	Flag handling area and post signs; have wash and first aid equipment on site.
	Hypersensitivity	Hypersensitive people should not be employed for the project.
	Mixing	Eye protection and gloves are required. Head cover and respirators are optional.
Exposure to:	Gypsy Moths	Hairs from moths can cause irritations to the skin and airway. Wear long-sleeved shirts and use respirators if hairs are in the air.
	Biting/Stinging Insects	Blouse pants; wear long-sleeved shirts; apply repellant; check for ticks frequently.
	Poison Ivy	Ivy prevention cream before exposure is optional. Wash affected area. Wash clothes separately.
	Poisonous Snakes	Wear high top leather boots; loose fitting clothes; watch where stepping. Bite victims should be taken to hospital rather than treated in the field.
		Snake chaps are optional.
Vehicle Travel	Good Conditions	Limit speed; plan your route; watch for objects in your path, i.e., deer, children, rocks, etc.; drive defensively; wear seat belts. *
	Reduced Visibility Conditions Due to Poor Light, Rain, Dust, Fog, Etc.	Drive with lights on all of the time when visibility is reduced. Wear seat belts. Drive defensively.
		* Only current licensed drivers
	Parking	Make sure vehicle is safely off road

10. Approved by: Bradley P. Knox

11. Title: Entomologist

12. Date: 4/11/95

Previous edition is obsolete

(over)

FS-6700-7 (2/94)

APPENDIX H

TOXICOLOGY PROFILES

MATERIAL SAFETY DATA SHEET

I. IDENTIFICATION OF PRODUCT

LOVELAND INDUSTRIES, INC.
P. O. BOX 1289
GREELEY, COLORADO 80632

EMERGENCY PHONE NUMBERS 1-800-424-9300 CHEMTREC
1-303-356-8920 LOVELAND IND.
CALL CHEMTREC 24 HOURS A DAY @ 1-800-424-9300

TRADE NAME: **BOND**
CHEMICAL NAME: Carboxylated Synthetic Latex (combination synthetic latex and primary aliphatic oxyalkylated alcohol)

II. HAZARDOUS COMPONENTS OF MIXTURES

COMPONENT	CAS #	%	TLV(UNITS)
NONE			

III. PHYSICAL DATA

BOILING POINT:	212F	VAPOR DENSITY(AIR=1):	Not Est.
BULK DENSITY:	8.41#/Gal	% VOLATILE BY VOL:	45%
SPECIFIC GRAVITY:	1.01g/ml	APPEARANCE:	White Emulsion
SOLUBLE IN WATER:	Yes	ODOR:	Slight Ammonia
VAPOR PRESSURE (mm OF Hg) @ 20 D C: Not Est.			

IV. FIRE & EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD):	Not Est.
FLAMMABLE LIMITS (UEL AND LEL):	Not Est.
EXTINGUISHING MEDIA:	Water spray/fog, Foam, Dry Chemical, CO2.
SPECIAL FIRE FIGHTING PROCEDURES:	Wear protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARD:	None known

V. REACTIVITY DATA

STABILITY:	Stable
CONDITIONS TO AVOID:	None
INCOMPATIBILITY (MATERIALS TO AVOID):	Avoid multivalent transition metal ions as they will cause coagulation. Will also coagulate under low pH conditions.
HAZARDOUS DECOMPOSITION PRODUCTS:	None Known
HAZARDOUS POLYMERIZATION:	Will not occur

VI. HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: Animal studies indicate minimal toxicity through oral or dermal route. Eye and skin exposure indicated as minimally irritating.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush with water for 15 minutes, then get medical attention.

SKIN: Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation persists.

INGESTION: First aid is not normally required, if symptoms persist get medical attention.

INHALATION: Remove victim to fresh air. Apply artificial respiration if necessary.

CARCINOGEN STATUS: Not listed by NTP, IARC or ACGIH.

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Pick up with absorbant material and place in a container for proper disposal in accordance with all Federal, State and Local Regulations.

WASTE DISPOSAL METHOD: Do not contaminate water, food, or feed by storage or disposal. Dispose of in an approved waste disposal facility in accordance with all Federal, State, and Local Regulations.

CONTAINER DISPOSAL: Triple rinse (or equivalent) adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill, or by other procedures approved by the appropriate authorities.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Wear a NIOSH/MSHA approved respirator if necessary.

VENTILATION: LOCAL: Recommended

MECHANICAL: Not required

SPECIAL: None

OTHER: None

PROTECTIVE GLOVES: Wear rubber or impervious gloves.

EYE PROTECTION: Wear goggles or a face shield.

OTHER PROTECTION: Full body covering clothing.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN STORAGE AND HANDLING: Store in a cool dry place. Keep in original container, tightly closed. Do not reuse empty container.

OTHER PRECAUTIONS: Keep out of reach of children. Always launder contaminated clothing before reuse.

X. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III. SARA 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372.
Components which could require reporting are: None.

SARA TITLE III HAZARD CATEGORY

IMMEDIATE: Yes FIRE: No REACTIVITY: No

DELAYED: No SUDDEN RELEASE OF PRESSURE: No

FREIGHT CLASS: ITEM 102120 CLASS 60

DOT REGULATION: Not Regulated

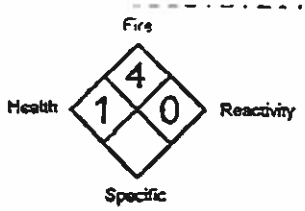
Legal responsibility is assumed only for the fact that all studies reported here and all opinions are those of qualified experts. Buyer assumes all risks & liability. He accepts & uses this material on these conditions. He must have a copy of this MSDS where this material is handled.

Date of Issue: 10/25/90

Supercedes: 8/19/90

Georgia-Pacific

Georgia-Pacific West, Inc.
A wholly owned subsidiary



Certificate Number 101432

MATERIAL SAFETY DATA SHEET

LIGNOSITE® AN SODIUM LIGNOSULFONATE POWDER

SECTION 1 - PRODUCT IDENTIFICATION

Product Name and Synonyms:

LIGNOSITE® AN; Sodium Lignosulfonate.

CAS Name and Number:

Lignosulfonic Acid, Sodium Salt; CAS# 8061-51-6.

Chemical Family: Lignin.

Chemical Formula: Unknown.

Manufacturer's Name and Address

GEORGIA-PACIFIC WEST, INC.
300 W. Laurel Street (98225)
P.O. Box 1236
Bellingham, WA 98227
Telephone: 360-733-4410

Emergency Telephone Number

1-800-424-9300 CHEMTREC

Post-it® Fax Note 7671 | Date 1-30-97 | # of pages ▶ 4
To Brad Oakes | From Linda G | Co. | Co./Dept. | Phone # | Phone # | Fax # 360 676 7217 | Fax # 304 285 1505

SECTION 2 - HAZARDOUS INGREDIENTS

COMPONENT	% WEIGHT OR VOL	ACGIH TWA UNITS	ACGIH STEL UNITS	OSHA PEL UNITS
None	—	—	—	—

SECTION 3 - PHYSICAL PROPERTIES

Appearance and Odor: Brown powder with no appreciable odor.

Molecular Weight: Unknown.

Boiling Point (Degrees Fahrenheit): Solid.

Melting Point (Degrees Fahrenheit): Decomposes.

Vapor Pressure (MM of Mercury): Nil.

Specific Gravity (Water = 1): Approx. 0.5.

Vapor Density (Air = 1): Not applicabl

Percent Volatile (By Weight): 2-10% moisture.

pH: Approx. 7 - 8.5.

Solubility in Water: Soluble.

Evaporation Rate (Butyl Acetate = 1): Not applicable.

SECTION 4 - FIRE AND EXPLOSION DATA

Flash Point: Not applicable.

Fire Extinguishing Media: Water or CO_2.

Flammable Limits (Percent by Volume): **Lower:** Not applicable. **Upper:** Not applicable.

Special Firefighting Procedures & Equipment: Normal.

Unusual Fire and Explosion Hazards: Dust explosions may occur when finely divided particles are mixed with air in the presence of an ignition source. Avoid excessive accumulation of dust on floors, beams, or machinery. Ignition temperature is approximately 250-300°C.

SECTION 5 - REACTIVITY DATA

Stability: Unstable ___ **Stable X**

Conditions to Avoid: None known.

Incompatibility (Materials to Avoid): Caution necessary with strong oxidizing agents.

Hazardous Decomposition Products: Sulfur dioxide (SO_2) possible.

Hazardous Polymerization: Will Occur ___ **Will Not Occur X**

Conditions to Avoid: None known.

SECTION 6 - HEALTH HAZARD INFORMATION

Exposure from Routine Use: None known.

Effects of Overexposure: Prolonged exposure to high levels of dust in air may cause sneezing, coughing, or other nuisance symptoms.

Probable Routes of Exposure: Skin, inhalation, eyes.

Emergency First Aid Procedures

Eye Contact: Rinse immediately with water. Remove contact lenses; flush eyes with water. Consult a physician if necessary.

Skin Contact: Wash skin with soap and water. Seek medical attention if irritation persists. Launder contaminated clothing before re-use.

Inhalation: Move to fresh air to relieve nuisance symptoms.

Ingestion: Rinse mouth. Immediately dilute by drinking large quantities of water. After dilution, induce vomiting. Seek immediate medical attention. Never give anything by mouth to an unconscious person.

SECTION 7 - TOXICITY DATA

Oral: This material is not toxic when administered orally to rats under the Federal Hazardous Substances Act (FHSA) criteria.

Dermal: This material is not an irritant when applied as a moist powder to the skin of rabbits under the FHSA criteria.

Inhalation: Four-hour exposure of rats to 198 mg/m^3 of dust has resulted in neither mortality nor observable signs of toxicity.

Carcinogenicity: Not listed as a carcinogen by IARC, NTP, OSHA, or ACGIH.

Other Pertinent Data: This material is not an eye irritant when applied (in a 40% solution) to the eyes of rabbits under the FHSA criteria.

BOND®

SPREADER STICKER WITH SURFACTANT DEPOSITION AGENT

INGREDIENTS:

Synthetic latex	45%
Primary aliphatic oxyalkylated alcohol	10%
Inert ingredients	45%
TOTAL	100%

Ingredients exempt from residue tolerance under 40 CFR 180.1001

CA REG. NO.
36208-50005

LOVELAND INDUSTRIES INC.
PO Box 1289 • Greeley, CO 80632-1289
(970) 356-8920

WARNING: Keep Out of Reach of Children

WARNING: Irritating to Eyes and Skin

Statement of Practical Treatment: Avoid Contact with Skin and Eyes

If in Eyes: Flush with water for 15 minutes, then get medical attention.
If on Skin: Remove contaminated clothing. Wash skin with soap and water. Get medical attention if irritation persists.
If Swallowed: First aid is not normally required. If symptoms persist, get medical attention.
If Inhaled: Remove victim to fresh air, apply artificial respiration if necessary.

General: BOND is a very efficient sticker for agriculture. BOND's adhesion properties increase initial deposition, reduces run-off and secures spray from rain or overhead irrigation. Apply sprays containing BOND at least one hour before an anticipated rain or overhead irrigation. Once the spray has dried, BOND will adhere the pesticides.

Directions for Use: SHAKE WELL BEFORE USE. Fill spray tank 1/2 full with water and begin agitation. Add pesticides as directed by the label while maintaining agitation and continue to fill. After pesticides are thoroughly mixed, continue agitation and add BOND at desired rate. Some pesticides have stated adjuvant use rates. In all cases, the pesticide manufacturer's label should be consulted regarding specific adjuvant use recommendations and that rate followed. Do not add adjuvant at a level that would exceed 5% of the finished spray volume.

Suggested use rates: The sticking efficiency of BOND varies from pesticide to pesticide, so the usage rate will be associated with the formulation being sprayed.

1 to 2 pints per 100 gallons or 2 to 4 fluid ounces per acre

Rinse tank, lines and nozzles immediately after spraying. Observe the pre-harvest interval on the pesticide label when using BOND. No time limitations apply to non-food crops.

Storage: Store in cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container.

Disposal: Do not contaminate water, food or feed by storage or disposal. Wastes may be disposed of on-site or at an approved waste disposal facility. Triple rinse (or equivalent) adding rinse water to spray tank. Offer container for recycling or dispose of container in sanitary landfill or by other procedures approved by appropriate authorities.

Notice: Loveland Industries, Inc. warrants that the product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, equipment damage or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of application or use all of which are beyond the control of Loveland Industries, Inc. In no case shall Loveland Industries, Inc. be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Loveland Industries, Inc. makes no warranties of merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

LID313

Personal Protective Equipment

Protective Gloves: Rubber gloves recommended.

Eye Protection: Goggles recommended.

Respiratory Protection (Specify Type): Air purifying respirator recommended for prolonged exposure to high concentrations.

Other Protective Equipment: As appropriate to prevent contact with body.

Ventilation

Local Exhaust: Recommended. Because of the explosive potential of organic dust when suspended in air, precautions should be taken to prevent sparks or other ignition sources in ventilation equipment. Use of totally enclosed motors is recommended.

Mechanical (General): Recommended.

Special: Use explosion-proof equipment for dusty conditions.

Other: None.

SECTION 9 - SPILL, LEAK, AND DISPOSAL PROCEDURES

Steps to be Taken in Case Material is Released or Spilled

Wash area with water. Spills or releases of this material do not currently trigger the emergency release reporting requirements under the federal Superfund Amendments and Reauthorization Act of 1986 (SARA). State and local laws may differ from federal law. Consult counsel for further guidance on your responsibilities under these laws.

Waste Disposal Methods: Customary plant procedures for industrial waste treatment.

Clean Water Act Requirements: None known.

Resource Conversation and Recovery Act (RCRA) Requirements: None known.

SECTION 10 - REGULATORY INFORMATION

FDA: Not applicable.

USDA: Not applicable.

CPSC: Not applicable.

TSCA: CAS# 8061-51-6, Lignosulfonic Acid, Sodium Salt.

DOT: Non-regulated.

Proper Shipping Name: None.
Hazard Class: None.
Label Required: None.
Identification No.: None.
Other Pertinent Information: None.

EPA: Superfund Amendments and Reauthorization Act (SARA) Title III: Section 313, Supplier Notification.
Not applicable.

Precautions to be Taken in Handling and Storing

Store in a dry place and keep sealed until ready to use to prevent caking from moisture pickup. This material is biodegradable. Use caution when opening unvented containers of water solutions. Microbial activity may cause pressure accumulation.

Other Precautions: None known.

Registrations / Certifications: None.

Effective Date: 1/2/95. Supersedes: 1/28/94.

IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. GEORGIA-PACIFIC MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND DATA HEREIN. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED. Georgia-Pacific will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete, or otherwise misleading.

The symbol "•" indicates revision from previous issue.

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS

WARNING

Causes eye irritation. Do not get in eyes.

FIRST AID

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. If eyes become irritated, call a physician.

ENVIRONMENTAL HAZARDS

Avoid application to lakes, streams, or ponds. Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE
GENERAL CLASSIFICATION

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For foliar protection from gypsy moth larvae make 1 application of at least 400 billion gypsy moth polyhedral inclusion bodies per acre, or make 2 or more applications 2 to 4 days apart at the rate of 200 to 500 billion gypsy moth polyhedral inclusion bodies per acre, in sufficient spray formulation for thorough and uniform coverage. Stickers and u.v. protectants may enhance performance of this product. Refer to technical bulletin for mixing and application instructions. **NEVER USE CHLORINATED WATER IN THE SPRAY FORMULATION.**

STORAGE AND DISPOSAL

Activity may be impaired by storage above 90° F.

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.
Do not reuse empty container.

Pesticide, spray mixture, or rinsate that cannot be used should be disposed of in a landfill approved for pesticides or buried in a safe place away from water.

Container disposal: Triple rinse and dispose of in an approved landfill or bury in a safe place.

Consult Federal, State or local disposal authorities for approved alternative procedures.

GYPCHEK
BIOLOGICAL INSECTICIDE
FOR THE
GYPSY MOTH

Active Ingredient:*	
Polyhedral inclusion bodies of gypsy moth nucleopolyhedrosis virus	14.6%
Inert ingredients	85.4%
TOTAL	100.0%

*This lot contains at least _____ billion gypsy moth polyhedral inclusion bodies per gram.

KEEP OUT OF REACH OF CHILDREN

WARNING

See back of tag for additional precautionary statements.

For use in only wide-area government sponsored pest control programs.

NOTICE: The U.S. Forest Service makes no warranty, express or implied including the warranties of merchantability and/or fitness for any particular purpose, concerning this material except those which are contained on the U.S. Forest Service's label.

MFG. BY: U.S. Forest Service, USDA
P.O. Box 2417
Washington, D.C. 20013

EPA ESTABLISHMENT NO. 27586-CT1

EPA REGISTRATION NO. 27586-2

NET WEIGHT: _____ LOT NO.: _____

MATERIAL SAFETY DATA SHEET[1]

(Form "Essentially similar" to OMB No. 1218-0072)

PRODUCT NAME: GYPCHEK	CHEMICAL NAME: Nucleopolyhedrosis Virus of *Lymantria dispar*, The Gypsy Moth
FORMULA: As a biological organism, this A.I. does not lend itself to characterization by normal pesticide criteria.	MOLECULAR WEIGHT: N/A
SYNONYMS: N/A	CHEMICAL FAMILY: N/A

I. PHYSICAL DATA

BOILING POINT: N/A	FREEZING POINT: N/A
SPECIFIC GRAVITY (H_2O=1): N/A	VAPOR PRESSURE (mm Hg): N/A
VAPOR DENSITY (AIR=1): N/A	EVAPORATION RATE (Butyl Acetate=1): N/A
%VOLATILES BY VOLUME: N/A	SOLUBILITY IN WATER (% by wt): INSOLUBLE

APPEARANCE AND ODOR:
Dried Insect body parts and virus polyhedra

11. HAZARDOUS INGREDIENTS

MATERIAL	PERCENT	TLV (Units)
N/A		

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): N/A	FLAMMABLE LIMITS N/A

EXTINGUISHING MEDIA:
Water on burning container.

SPECIAL FIRE FIGHTING PROCEDURES:
None except to avoid inhalation of particulates released by fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
N/A

1 Prepared in compliance with the U.S. Department of labor, Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200)

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:	Not established
EFFECTS OF OVEREXPOSURE:	None known.
EMERGENCY AND FIRST AID PROCEDURES:	Remove from exposure situation.
NOTES TO PHYSICIAN:	Allergies and hypersensitivity may occur in some individuals.

V. REACTIVITY DATA

STABILITY:	UNSTABLE ☐	STABLE ☐
CONDITIONS TO AVOID	Do not store in sunlight at high temperatures.	
INCOMPATIBILITY (materials to avoid)	N/A	
HAZARDOUS DECOMPOSITION PRODUCTS	N/A	
HAZARDOUS POLYMERIZATION:	MAY OCCUR ☐	WILL NOT OCCUR ☐
CONDITIONS TO AVOID	None	

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Containment and cleanup by placing in a sealable container for transport to an approved landfill or other disposal site.
WASTE DISPOSAL METHOD	Burn bags or triple rinse containers and dispose them and excess product at an appropriate site.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)	Use normal clothing and medical face mask as appropriate.
VENTILATION: LOCAL EXHAUST	N/A
MECHANICAL (general)	N/A
PROTECTIVE CLOTHING:	Goggles and face mask as appropriate.
OTHER PROTECTIVE EQUIPMENT:	None except to have eyewash, soap and water available.

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	Keep out of reach of children For use only in USDA-FS-supervised projects. Avoid direct application to water. Do not contaminate water by inappropriate disposal.
OTHER HANDLING AND STORAGE CONDITIONS	Avoid heat and sunlight. Dispose in approved sanitary landfill or by incineration, as allowed by State and local authorities. Do not reuse "empty" containers.

DEPARTMENT OF TRANSPORTATION	HAZARD CLASSIFICATION	Non-hazardous, non-toxic
	SHIPPING NAME	Nucleopolyhedrosis Virus
EPA REGISTRATION #	27586-2	
NAME	Nucleopolyhedrosis Virus	

The USDA Forest Service (FS) believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted. The data are not to be taken as a warranty or representation for which the FS assumes legal responsibility. They are offered solely for your cooperation, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State and local laws and regulations.

USDA Forest Service
P.O. Box 96090
Washington, DC 20090

Emergency Telephone No. (202) 205-1107

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
Pacific Molasses Company	(312)849-9220
ADDRESS (Number, Street, City, State, and ZIP Code) 13550 S. Indiana Avenue, Chicago, Illinois 60627	
CHEMICAL NAME AND SYNONYMS Cane Molasses	TRADE NAME AND SYNONYMS Blackstrap Molasses
CHEMICAL FAMILY N.A.	FORMULA N.A

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS NA			BASE METAL NA		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS OR GASES	%	TLV (Units)

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	unknown	SPECIFIC GRAVITY (H_2O=1)	1.4
VAPOR PRESSURE (mm Hg.)	NA	PERCENT, VOLATILE BY VOLUME (%)	unknown
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (_____=1)	unknown
SOLUBILITY IN WATER	NA		

APPEARANCE AND ODOR dark brown/molasses-like odor,

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)		FLAMMABLE LIMITS	LEL	UEL
N.A				

EXTINGUISHING MEDIA

SPECIAL FIRE FIGHTING PROCEDURES

UNUSUAL FIRE AND EXPLOSION HAZARDS

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: N.A.

EFFECTS OF OVEREXPOSURE: N.A.

EMERGENCY AND FIRST AID PROCEDURES

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
N A	UNSTABLE		
	STABLE		

INCOMPATABILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		
	WILL NOT OCCUR		

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

wash with water

WASTE DISPOSAL METHOD: N.A.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type): N.A.

VENTILATION		
	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES | EYE PROTECTION

OTHER PROTECTIVE EQUIPMENT

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: N.A.

OTHER PRECAUTIONS

GPO 934-190

APPENDIX I

MAPS

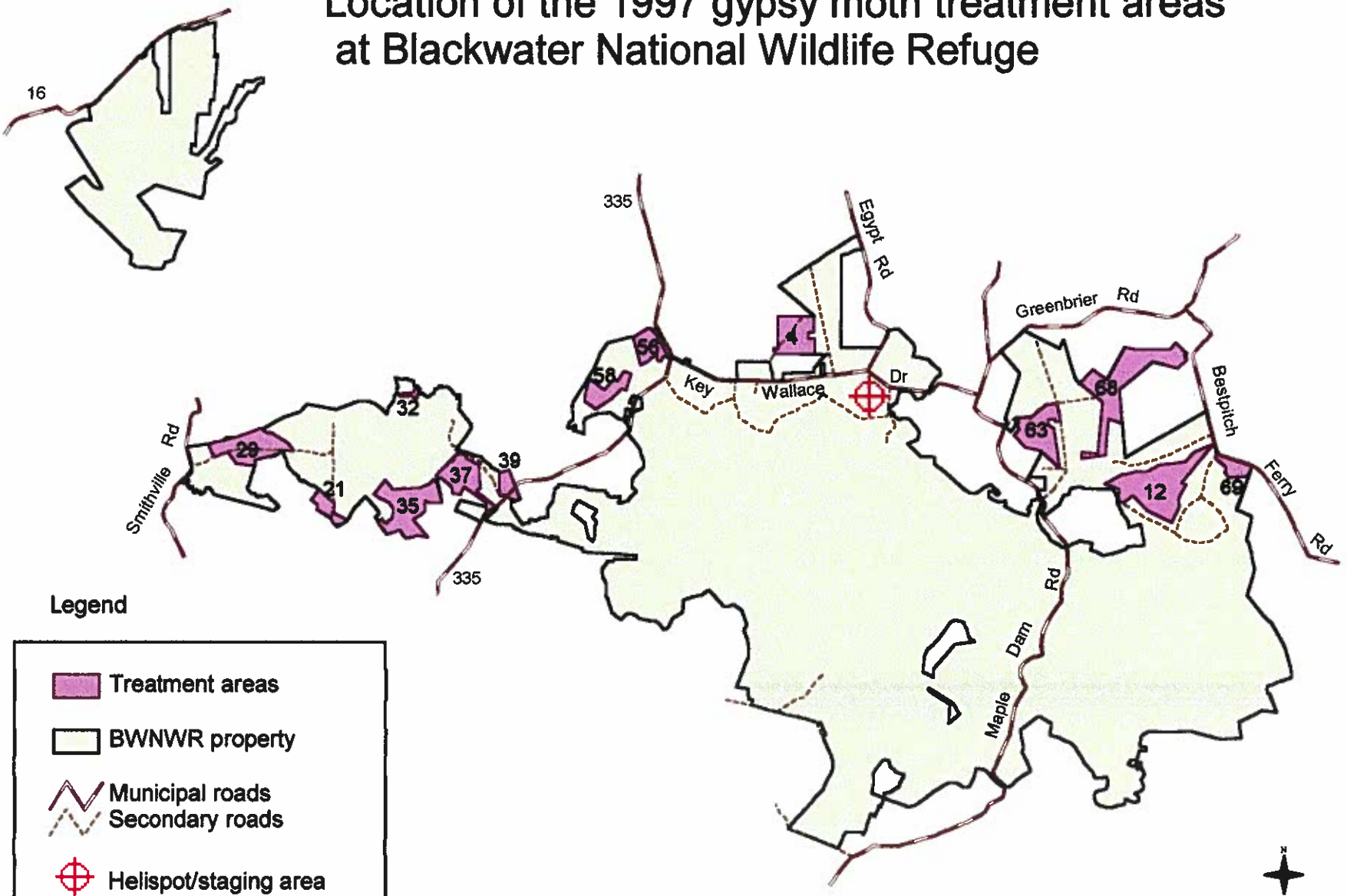
* General Location

* Treatment Areas

* Medical Facilities

General location map of Greenbelt Park, Blackwater National Wildlife Refuge and Fredericksburg and Spotsylvania National Military Park

Location of the 1997 gypsy moth treatment areas at Blackwater National Wildlife Refuge



USDA Forest Service, FHP, Morgantown, WV.

Location of medical facility and airport

APPENDIX J

ADMINISTRATIVE PHONE NUMBERS FOR THE ENTIRE PROJECT

ADMINISTRATIVE PHONE NUMBERS

AVIATION

AIRPORTS	COLLEGE PARK AIRPORT	(301) 864-5844
	SHANNON AIRPORT (Radio Frequency = 122.8)	(540) 373-4331
	CAMBRIDGE AIRPORT	(410) 228-4571
	EASTON AIRPORT	(410) 822-8560
	WASHINGTON NAT'L AIRPORT	(703) 417-8000
	- Fixed Base Operation	(703) 419-8440
FEDERAL AVIATION ADMINISTRATION	FLIGHT STANDARDS OFFICE	(504) 611-8160 Ext. 227
	FLIGHT SERVICE STATION	1-800-942-7433 or
	(Leesburg, VA)	(504) 771-1832
	(Baltimore, MD)	(410) 787-0040
	AIR ROUTE TRAFFIC CONTROL	(202) 783-0745

CONTRACTOR

MAIN OFFICE		
CHIEF PILOT		

EMERGENCY

CHEMTREC	Spill/Exposure Info	1-800-424-9300/8802
POISON CONTROL	Georgetown University	1-800-492-2414 or (202) 566-2000
BLACKWATER NATIONAL WILDLIFE REFUGE	DORCHESTER COUNTY HEALTH DEPARTMENT	(410) 228-3323
	DORCHESTER GENERAL HOSPITAL (Cambridge)	(410) 228-5511
	DORCHESTER COUNTY SHERIFF	**911** or (410) 228-4142
	MARYLAND STATE POLICE (Cambridge)	**911** or (410) 228-3101
	DORCHESTER FIRE CONTROL	(410) 228-2222/2223
	CHURCH CREEK FIRE TOWERS (MD Forest Service)	(410) 228-1861
FREDERICKSBURG AND SPOTSYLVANIA NATIONAL MILITARY PARK	EMERGENCY/FIRE AND RESCUE	**911**
	MARY WASHINGTON HOSPITAL (Fredericksburg)	(540) 899-1100
	PARK POLICE (Dispatcher)	(540) 899-2698
GREENBELT PARK	EMERGENCY/FIRE AND RESCUE	**911**
	EMERGENCY MANAGEMENT OFFICES:	
	- Alexandria (Charles McRorie)	(703) 838-3825
	- Fairfax County (Ronald Phillips)	(703) 280-0548

	- Prince Georges County (David Jacobs)	(301) 499-8050
	HOSPITALS:	
	- Prince Georges Hospital Center (Cheverly, MD)	(301) 618-2000
	- Greater SE Community Hospital (Wash., DC)	(202) 574-6000
	- Mount Vernon Hospital (Alexandria, VA)	(703) 664-7000
	- Davison Army Airfield (Fort Belvoir, VA)	(703) 806-7224
	NATURAL RESOURCES POLICE/MARINE AND INLAND	1-800-628-9944
	PARK POLICE:	
	- Dispatcher	(202) 690-5000 or (202) 619-7300/7310
	- Aviation	(202) 690-0738/0768

FISH AND WILDLIFE SERVICE

BLACKWATER NATIONAL WILDLIFE REFUGE		
BILL GIESE	W (410) 228-2692 Fax (410) 228-3261	H (410) 228-0637
MEG WALKUP	W (410) 228-2692 Fax (410) 228-3261	

GREENBELT PROJECT (College Park, MD)	Comfort Inn (Rt. 1, South of Greenbelt Rd.)	(301) 441-8810
	Quality Inn (Rt. 1, South of Univ. of MD)	(301) 864-5820
	Royal Pines (Rt. 1, North of Greenbelt Rd.)	(301) 345-4900
	Super 8 (Rt. 1, North of Greenbelt Rd.)	(301) 474-0894

NATIONAL PARK SERVICE

JIL SWEARINGEN (Center for Urban Ecology)	W (202) 342-1443 Ext. 218 Fax (202) 282-1031	H (301) 772-7824 Cell (202) 494-2123
JIM SHERALD (Center for Urban Ecology)	W (202) 342-1443 Ext. 208 Fax (202)282-1031	H (703) 780-5140
SUSAN RUDY (NACE-Resource Mgmt.)	W (202) 690-5162/85 Fax (202) 690-0862	H (703) 642-3132 Cell (202) 236-2412
SHELLY GIGLIOTTI (Greenbelt Park)	W (301) 344-3944	
SUSAN ALBERTS (Fredericksburg and Spotsylvania NMP)	W (540) 785-9008 Fax (540) 785-9367	H (540) 374-3415 Cell (540) 374-3415
PUBLIC AFFAIRS	Greenbelt Park/NACE/ NCR (Sandra Alley)	W (202) 205-1918 H (202) 525-5867
	Fred & Spot NMP	(540) 373-4510
RESOURCE MANAGEMENT	NACE Stephen Syphax	(202) 690-5162 Cell (202) 236-7835
	Fred & Spot NMP	(540) 785-9008
WASO IPM/WILDLIFE VEG Carol DiSalvo	W(202) 219-8936	H (703) 527-4730